

How Conrad Dubai cut food waste by 50% using AI insights

Conrad Dubai, a luxurious five-star hotel situated in the heart of the city's bustling financial and shopping district, has made significant strides in sustainability. By integrating Winnow's AI technology they have cut food waste by 50%. Led by Culinary Director Ilias Doulamis, the team leverages data to minimize overproduction and creatively repurpose leftovers. This results in cost savings and an enhanced dining experience for guests. This approach aligns with Hilton's Travel with purpose campaign and sustainability targets outlined in their Environmental, Social, and Governance (ESG) framework, which aims to halve the company's environmental footprint by 2030.

Data-Driven Decisions

The kitchen team leverages Winnow's detailed reports to inform their daily operations. These reports provide insights into top wasted ingredients, waste patterns by day and time, waste categories, financial impacts, and ingredient usage trends. With this data, the team makes informed decisions on inventory management, portion sizes, and menu planning.

Understanding guest demographics has also been crucial in reducing food waste. By analysing data from Winnow, the team discovered patterns related to guest preferences, allowing them to adjust menus accordingly. They noticed certain dishes were wasted when guest demographics shifted, prompting immediate menu changes to suit preferences. This demonstrates the hotel's commitment to exceptional service and personalization while promoting environmental responsibility.

Team and Guest Awareness

Essential to the hotel's sustainability efforts is raising team awareness. Ilias invests time in educating all new staff members about sustainability during their induction, dedicating an hour to discuss the importance of reducing food waste and the role of tools like Winnow. He emphasises the need for sustainability education within the industry.

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Winnow is a very powerful tool. It can give you a lot of insights and data that you can use. Winnow is helping me make better decisions regarding inventories, portion size, and menu planning.

Ilias Doulamis
Culinary Director & Regional Chef for Arabian Peninsula
Conrad Dubai



Waste reduction results



50% reduction in waste volume*



\$ 88,000 annualised reduction in waste value



240 tons of CO₂e saved each year



140,000 meals saved each year

*Baseline compared to March–August 2024

Innovative Food Uses and Zero-Waste Practices

The kitchen has embraced creative ways to repurpose leftover food, aligning with zero-waste principles. Surplus fruits and vegetables are transformed into gazpachos, soups, ice creams, sorbets, jams, and preserves. Herbs are used to create infused oils and pestos. Leftover bread becomes desserts including puddings, crumble cookies, and croutons. The team have also developed a dessert using solely repurposed ingredients for Hilton's Flavor and Flair food competition. The dessert features white chocolate, dill, cucumber, and reused pumpernickel bread transformed from leftovers showcasing the hotel's commitment to zero-waste principles and sustainability.



"The team understands how important it is to take care of all leftover food and how we can repurpose it. We have changed the team's mindset regarding zero waste and how we can use all the trimmings and come up with ideas."

Ilias Doulamis, Culinary Director, Conrad Dubai

Financial Benefits

Implementing Winnow has led to significant financial benefits for Conrad Dubai. By optimising menus based on waste data, the hotel has improved profitability and reduced over production. This not only enhances efficiency but also saves on labor costs and energy. Additionally, less waste leads to lower disposal expenses, further contributing to overall cost savings.

Participation in Green Ramadan and Green Breakfast Initiatives

As part of its commitment to sustainability, Conrad Dubai actively participated in Hilton's Green Ramadan and Green Breakfast initiatives. During the Green Ramadan campaign, the hotel achieved a 20% reduction in food waste. Over a 14-week Green Breakfast campaign, the hotel reduced food waste by 44%, saving significant amounts of food and reducing environmental impact. These achievements showcase Conrad Dubai's dedication to implementing effective waste reduction strategies during high-traffic periods.

Conclusion

Looking ahead, Conrad Dubai plans to expand its repertoire of zero-waste recipes, enhance local sourcing to reduce carbon emissions, invest in energy-efficient kitchen technologies, and promote staff education on food waste sustainability. The hotel is also committed to community engagement, supporting local organisations to foster a sustainable community.

Conrad Dubai exemplifies how luxury hospitality can be sustainable and community-focused. With a clear vision and the right tools, they are reducing waste and setting a standard for responsible and innovative practices. Ilias emphasises the urgency of addressing environmental issues through sustainable practices, believing that while financial impact is important, environmental impact is paramount for ensuring a better future for the planet. By leveraging technology and fostering a culture of mindfulness, Conrad Dubai is making significant strides toward a cleaner, greener future.

About Winnow

Winnow develops Artificial Intelligence (AI) tools to help chefs in large businesses like hotels, contract caterers, casinos, and cruise ships to run more profitable, and sustainable kitchens by cutting food waste in half.

Measuring food waste is a challenge for all commercial kitchens with up to 20% of all food purchased going to waste. Winnow offers a solution for every kitchen.

Our analytics platform and reporting suite help teams pinpoint waste quickly, allowing enterprises to drive significant waste reductions at scale.

Kitchens that use Winnow cut food waste by half on average, driving food purchasing costs down by 3%-8%, improving margins whilst doing the right thing. Winnow is deployed in over 60 countries with offices in London, Dubai, Singapore, Cluj, and Chicago.

